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FIGURE 1

MFRLRSWASSTTGSRYGSAFCGSPTLAWCVCPVCYGESRILRVKVVSG  
IDLAKKDIFGASDPYVKLSLYVADENRELALVQTKTIKKTLNPKWNEEF  
YFRVNPSNHRLLFEVFDENRLTRDDFLGQVDVPLSHLPTEDEPTMERPYT  
FKDFLLRPRSHKSRVKGFLRLKMAYMPKNGGQDEENSQRDDMEHGWEV  
VDSNDSASQHQEEELPPPPLPPGEEKVVDNLGRYYVNHNNRTTQWHRPS  
LMDVSSESNDNNIRQINQEAAHRRFRSRRHISEDLEPEPSEGKDVEPWE  
\*  
TISEEVNIAGDSLGVVLPPPPASPGSRTPQELSEELSRRQLITPDSNG  
EQFSSLIQREPSSRLRSCSVTDAVAEQGHLPPPSVAYVHTTPGLPSGWE  
ERKDAKGRTYYVNHNNRTTWTRPIMQLAEDGASGSATNSNNHLIEPQI  
RRPRSLSSPTVTLXAPLEGAKDSPVRRAVKDTLSNPQSPQPSPYNSPKP  
QHKVTQSFLPPGWEMRIAPNGRPFFIDHNTKTTWEDPRLKFVHMRSK  
TSLNPNGLGPLPPGWEERIHLDGRTFYIDHNSKITQWEDPRLQNPAITG  
PAVPYSREFKQKYDYFRKKLKKPADIPNRFEMKLHRNNIFEESYRRIMS  
VKRPDVLKARLWIEFESEKGLDYGGVAREWFFLLSKEMFNPYYGLFEYS  
ATDNYTLQINPNNSGLCNEDHLSYFTFIGRVAGLAVFHGKLLDGFFIRPF  
YKMMMLGKQITLNDMESVDSEYYNSLKWIILENDPTELDLMFCIDEENFGQ  
TYQVDLKPNGSEIMVTNENKREYIDLVIQWRFVNRVQKQMNAFLEGFTE  
LLPIDLIKIFDENELELLMCGLGDVDVNDWRQHSIYKNGYCPNHPVIOW  
FWKAVLLMADAEKRIRLLOFVTGTSRVMNGFAELYGSNGPOLFTIEOWG  
SPEKLPRAHTCFNRILDLPYETFEDLREKLLMAVENAOGFEGVD.

FIGURE 2

1 S R F S S S S S T V A C P G R G R A R P V C W K R S E M A - T C A V E V F G L P46934  
 1 - M F R L R S W A S S T T G S R Y G S A F C - G S P T L A W C V C V P V C Y G - ZGGBP-1

39 L E D E E N S R I V R V R V I A C I G I G L A K K D I L G A S D F Y V R V T L Y D P P46934  
 38 - - - E S R I I D R V K V V S G I D I L A K K D I F G A S D P Y V V K L S L Y V A ZGGBP-1

79 M N G V - L T S V Q T X T I K K S L H P K W N E E I L F R V H P Q O H R L L F E P46934  
 73 D E N R E L A L V Q T X T I K K T L N P K W N E E P Y F R V N P S N H R L L F E ZGGBP-1

118 V F D E N R L T R D D F L C O V D V P L Y P L P T E N P R L E R P Y T F K D P V P46934  
 113 V F D E N R L T R D D F L C O V D V P L S H L P T E D P T M E R P Y T F K D P V ZGGBP-1

158 L H P R S H K S R V K G Y L R L K M T Y L P K T S G S E D D N A E Q A E E L E P P46934  
 153 L R P R S H K S R V K G F L R L K M A Y H P X N G G Q D E E N S D O R D D M E H ZGGBP-1

198 G W V V L D Q P D A A C H L Q Q O E P S P L P P G W E E R Q D I L G R T Y Y V P46934  
 193 G W E V V D S N D S A S Q H O E L P P P P L P P P G W E E K V D H L G R T Y Y V ZGGBP-1

238 N H E S R R T O W K R P T P O D N L T D A E N G N I O L Q - - - A O R A F T T R P46934  
 233 N H N N R T T O W H R P S L M D V S S E D N N I R O I N O E A A H R R P R S R ZGGBP-1

275 R O I S E - - E T E S V D N O E S S E N W E I T R E D E A T H Y S S O A F P S P P46934  
 273 R H I S E D L E P E P S E G G D V P E P W E T I S E E V N I A G D S I G V V L P ZGGBP-1

313 P P S S N L D V - - P T H L A E E L N A R L T I F G N S A V S Q P A S S S N H P46934  
 313 P P P A S P G S R T S P Q E L S E E L S R R L Q I T P D S N G E Q F S S L I O R ZGGBP-1

350 S S R - - R G S L Q A Y T F E F Q P T L P - - - V L L P T S S G L P P G W E P46934  
 353 E P S S R L R S C S V T D A V A E Q G H L P P P S V A Y V V H T T P C L P S C W E ZGGBP-1

383 E K O D E R G R S Y Y V D H N S R T T T W T K P T V O - - - A T V E P46934  
 393 E R K D A K G R T Y Y V N H N N R T T T W T R P I M Q L A E D G A S G S A T N S ZGGBP-1

414 T S O L T S S Q S S - - - - - A G P Q S O A S T S D - - - - - P46934  
 433 N N H L I E P O I R R P R S L S S P T V T L X A P L E G A K D S P V R R A V K D ZGGBP-1

435 - S C C O V T Q P S - - - - - E I F O G F L P K G W E V R H A P N G R P46934  
 473 T L S N P O S P O S P Y N S P K P Q H K V T O S F L P P G W E M R I A P N G R ZGGBP-1

464 P F F I D H N T K T T T H E D P R L K I P A H L R G K T S L D T S N D L G P L P P46934  
 513 P F F I D H N T K T T T H E D P R L K F P V H M R S K T S L N - P N D L G P L P ZGGBP-1

504 P G W E E R T H T D G R I F Y I N H N I K R T Q W E D P R L E N V A I T G P A V P46934  
 552 P G W E E R I H L D G R T F Y I D H N S K I T O W E D P R L Q P A I T G P A V ZGGBP-1

544 P Y S R D Y K R K Y E F F R R K L K K O N D I P N K F E M Y L R R A T V L E D S P46934  
 592 P Y S R E F K O K Y D Y F R R K L K K P A D I P N R P E M Y L H R N N I F E E S ZGGBP-1

584 Y R R I M G V K R A D F L K A R L W I E F D G E K G L D Y G G V A R E W F F L I P46934  
 632 Y R R I M S V K R P D V L K A R L W I E P E S E K G L D Y G G V A R E W F F L ZGGBP-1

624 S K E M F N P Y Y G L P E Y S A T D N Y T L Q I N P N S G L C N E D H L S Y F K P46934  
 672 S K E M F N P Y Y G L F E Y S A T D N Y T L Q I N P N S G L C N E D H L S Y F T ZGGBP-1

664 F I G R V A G M A V Y H G K L L D G F F I R P F Y K M M L H K P I T L H D M E S P46934  
 712 F I G R V A G L A V F R G K L L D G F F I R P F Y K M M L G K O I T L N D M E S ZGGBP-1

704 V D S E Y Y N S L P W I L E N D P T E L O L R F I I D E E L F G O T H Q H E L K P46934  
 752 V D S E Y Y N S L P W I L E N D P T E L O L M P C I D E E N F G O T Y Q V D L K ZGGBP-1

744 N G C S E I V V T N K N K X E Y I Y L V I O W R F V N R I Q K O M A A F K E G F P46934  
 792 P N G S E I M V T N E N K R E Y I D L V I O W R F V N R V O K O M N A F L E G F ZGGBP-1

784 F E L I P O D L I K I F D E N E L E L L M C G L G D V D V N D W R E H T K Y K N P46934  
 832 T E L L P I D L I K I F D E N E L E L L M C C L G D V D V N D W R Q H S I Y K N ZGGBP-1

824 G Y S A N H O V I Q W F W K A V L M M D S E K R I R L L Q F V T G T S R V P M N P46934  
 872 G Y C P N H P V I Q W F W K A V L L M D A E K R I R L L O F V T G T S R V P M N ZGGBP-1

864 G F A E L Y G S N G P Q S F T V E Q M G T P E K L P R A H T C F N R L D L P P Y P46934  
 912 G F A E L Y G S N G P Q L F T I E Q M G S P E K L P R A H T C F N R L D L P P Y ZGGBP-1

904 E S F E E L W D K L O M A I E N T O G F D G V D P46934  
 952 E T F E D L R E K L L H A V E N A O C F E G V D ZGGBP-1

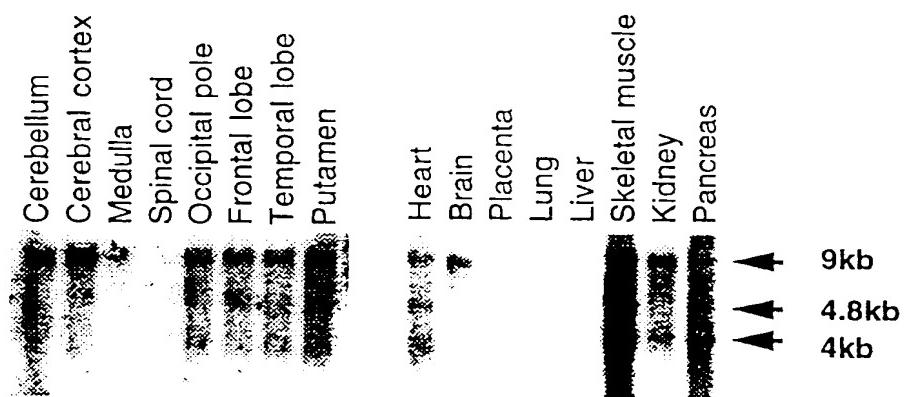
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FIGURE 3



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FIGURE 4

1 CAGAGAAAGGTCCTGACTATGGGGGTGTGCCAGAGAATG Mouse ZGGBP-1  
 Human ZGGBP-1

25 GTTCTCTTACTGICCARAGAGATGTTAACCCCTACTATG Mouse ZGGBP-1  
 Human ZGGBP-1

41 GTTCTCTTACTCTCCAAACAGATGTCAACCCCTACTACG Mouse ZGGBP-1  
 Human ZGGBP-1

65 CCCCTCTTGAGTACTCTGCCACGGACAACTACACACTTC Mouse ZGGBP-1  
 Human ZGGBP-1

81 GGCCTCTTGTAGTACTCTGCCACCCACAACTAACACCTTC Mouse ZGGBP-1  
 Human ZGGBP-1

105 AGATCAATCCCACCTCAGGCCCTGTAAATGAGAGACATTG Mouse ZGGBP-1  
 Human ZGGBP-1

121 AGATCAACCTTAATTCAAGGCCCTGTAAATCACCGATCATTT Mouse ZGGBP-1  
 Human ZGGBP-1

145 GTCCTATTTCACCTTCATTCCAAACACTTCCCTGGCCCTAGCG Mouse ZGGBP-1  
 Human ZGGBP-1

161 GTCCTACTTCACTTTATTGGAAAGAGTTGCTGGCTCTGGCC Mouse ZGGBP-1  
 Human ZGGBP-1

185 GTGTTTCACTGGAAACTCTTAGATGGATTCCTCATTEGAC Mouse ZGGBP-1  
 Human ZGGBP-1

201 GATTTCACTGGAAAGCTCTTAGATGGATTCCTCATTEGAC Mouse ZGGBP-1  
 Human ZGGBP-1

225 CATTCACAGAGATGATGCTGGGAAGCAGATAACGGCTGAA Mouse ZGGBP-1  
 Human ZGGBP-1

241 CATTTACAGAGATGATGTTGGRAAGCAGATAACGGCTGAA Mouse ZGGBP-1  
 Human ZGGBP-1

265 CGACATGGAGTCCTGGACAGCAGTACTACAACTCTTTG Mouse ZGGBP-1  
 Human ZGGBP-1

281 TCACATGGAAATCTGGATAGTGAATTACAACTCTCTTGG Mouse ZGGBP-1  
 Human ZGGBP-1

305 MAGTGGATCTTAGAAAAACGACCCACGGAAACTTGGACCTCA Mouse ZGGBP-1  
 Human ZGGBP-1

321 AAATGGATCCCTGGACAAATGACCCCTACTGAGCTGGGACCTCA Mouse ZGGBP-1  
 Human ZGGBP-1

345 TCTTCTGGATAGACCAWAGAAACTTTGGGCAAGACATACCA Mouse ZGGBP-1  
 Human ZGGBP-1

361 TGTTCTGCATAGACGAAGAAAACCTTTGGACAGACATATCA Mouse ZGGBP-1  
 Human ZGGBP-1

385 ACTCCATCTGAAAGCCACCGGCTCAGAAATAATGGTAACTC Mouse ZGGBP-1  
 Human ZGGBP-1

401 ACTGGATTGAAAGCCCCAATGGGCTCACAAATAATGCTGACCA Mouse ZGGBP-1  
 Human ZGGBP-1

425 AATGAGAACAAACGAGAATACTTACTTAGTCATCCAGT Mouse ZGGBP-1  
 Human ZGGBP-1

441 AATGAAAAACAAAAGGGAATAATACTGACTTAGTCATCCAGT Mouse ZGGBP-1  
 Human ZGGBP-1

465 CGAGATTCTCAACAGGOTCCACAAACCGAAATGAAATGCCCT Mouse ZGGBP-1  
 Human ZGGBP-1

481 SGRGATTGTTGAAACAGGGTCCAGAAGCAGATGAAACGCCCT Mouse ZGGBP-1  
 Human ZGGBP-1

505 CTTGGAGGCATTACAGAACTTCTTCCAAATCAGACTTCATTG Mouse ZGGBP-1  
 Human ZGGBP-1

521 CTTGGAGGGATTCACAGAACTACTTCCATTGATTGATTGATTG Mouse ZGGBP-1  
 Human ZGGBP-1

545 AAAATTCTGAAATGAGCTGGAGTTGCTGATCTCCG Mouse ZGGBP-1  
 Human ZGGBP-1

561 AAAATTCTGATGAAAATGAGCTGGAGTTGCTCATGATGCG Mouse ZGGBP-1  
 Human ZGGBP-1

585 GCCTGGGTGATGTCGACGTGAAACGACTGGAGACAGCACTC Mouse ZGGBP-1  
 Human ZGGBP-1

601 GCCTCCCTCATGTTGATGTCATGACTGGAGACAGCACATTC Mouse ZGGBP-1  
 Human ZGGBP-1

625 TATTACAGAACGGCTACTGCCCAACCCACCTGTTCATC Mouse ZGGBP-1  
 Human ZGGBP-1

641 TATTACAGAACCCCTACTGCCCAACCCACCTGTTCATC Mouse ZGGBP-1  
 Human ZGGBP-1

665 CACTCTTCTGGAGGCCGCTGCTCTGATGGATGCTGAGA Mouse ZGGBP-1  
 Human ZGGBP-1

682 CAGTGGTTCTGGAGGGCTGCTACTGATGAAACGCCGAGA Mouse ZGGBP-1  
 Human ZGGBP-1

705 AGCCGCTCCGCTACTACAGTTGTCACAGGACCTCCAG Mouse ZGGBP-1  
 Human ZGGBP-1

721 AGCGTATCCGGTTACTGCTGAGTTGTCACACGGACATCCC Mouse ZGGBP-1  
 Human ZGGBP-1

745 AGTACCCCATGAAATGGATTCCCAACTCTATGGCTCCAAAT Mouse ZGGBP-1  
 Human ZGGBP-1

761 AGTACCTATGAAATGGATTGCCCAGCTTATGGTTCCAAAT Mouse ZGGBP-1  
 Human ZGGBP-1

785 GTCTCTAGCTGTTACAAATAGAGCAATGGGGCAOTCC-G Mouse ZGGBP-1  
 Human ZGGBP-1

801 GGTCTCTAGCTGTTACAAATAGAGCAATGGGGCAOTCC-TG Mouse ZGGBP-1  
 Human ZGGBP-1

821 AAAAACTTACCG-AGAGCTC-EACATGCT-AATEGC Mouse ZGGBP-1  
 Human ZGGBP-1

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## **FIGURE 5**

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FIGURE 5 continued

157	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	AG T G A	Pub-3.seq
481	G A A T W G A T C T C G C C A A A A A G G A C A T C T T T G G A G G C C A G T G A	Z G G B P 1 . seq							
162	T C C G T A T G T G A A A C T T C A T T G T A C G T A G C G G A T G A G G A A T	Pub-3.seq							
521	T C C G T A T G T G A A A C T T C A T T G T A C G T A G C G G A T G A G G A A T	Z G G B P 1 . seq							
202	A G A G A A C T T G C T T T G G T C C A G A C A A A A A C A A T T A A A A A G A	Pub-3.seq							
561	A G A G A A C T T G C T T T G G T C C A G A C A A A A A C A A T T A A A A A G A	Z G G B P 1 . seq							
242	C A C T G G A A C C C A A A A A T G G A A T G A G A A T T T T A T T T C A G G G T	Pub-3.seq							
601	C A C T G G A A C C C A A A A A T G G A A T G A G A A T T T T A T T T C A G G G T	Z G G B P 1 . seq							
282	A A A C C C A T C A T C A G A C T C C T A T T G A A G T A T T T G A C	Pub-3.seq							
641	A A A C C C A T C A T C A G A C T C C T A T T G A A G T A T T T G A C	Z G G B P 1 . seq							
322	G A A A A T A G A C T G A C A C C G A G A C G G G C T T C C T G G G C A G G T G G	Pub-3.seq							
681	G A A A A T A G A C T G A C A C G A G A C G G A C G G A C T T C C T G G G C A G G T G G	Z G G B P 1 . seq							
362	A C C T G C C C C T T A G T C A C C T T C C G A C A G A A G A G A T C C A A C C A T	Pub-3.seq							
721	A C C T G C C C C T T A G T C A C C T T C C G A C A G A A G A G A T C C A A C C A T	Z G G B P 1 . seq							
402	G G A G C G A C C C T A T A C A T T A A G G A C T T T C T C C T C A G A C C A	Pub-3.seq							
761	G G A G C G A C C C T A T A C A T T A A G G A C T T T C T C C T C A G A C C A	Z G G B P 1 . seq							
442	A G A A G T C A T A A G T C T C G A G T T A A G G G A T T T T G C G A T T G A	Pub-3.seq							
801	A G A A G T C A T A A G T C T C G A G T T A A G G G A T T T T G C G A T T G A	Z G G B P 1 . seq							
482	A A A T G G C C T T A T A G C C C A A A A A T G C C A A G G A T G A G A G A	Pub-3.seq							
841	A A A T G G C C T T A T A G C C C A A A A A T G C C A A G G A T G A G A G A	Z G G B P 1 . seq							
522	A A A C A G T G A C C A G A G G G A T G A C A T G G A G G C A T G G A T G G G A A	Pub-3.seq							
881	A A A C A G T G A C C A G A G G G A T G A C A T G G A G G C A T G G A T G G G A A	Z G G B P 1 . seq							
562	G T T G T T G A C T C A A A T G A C T C T G G C T T C T C A G C A C C A A G G	Pub-3.seq							
921	G T T G T T G A C T C A A A T G A C T C T G G C T T C T C A G C A C C A A G G	Z G G B P 1 . seq							

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## FIGURE 5 continued

602	AACTTCCCTCCTGCCCTCCTCGGCTCCCCGGGTGGGAGAAGAAA	Pub-3.seq
961	AACTTCCCTCCTGCCCTCCTCGGCTCCCCGGGTGGGAGAAGAAA	ZGGBP1.seq
642	AGTGGAACAAATTAGGCCGAACTTACTATGTCACCAACAAC	Pub-3.seq
1001	AGTGGAACAAATTAGGCCGAACTTACTATGTCACCAACAAC	ZGGBP1.seq
682	AACCGGACCACTCAAGTGGCACAGACCCAGCCTGATGGACG	Pub-3.seq
1041	AACCGGACCACTCAAGTGGCACAGACCCAGCCTGATGGACG	ZGGBP1.seq
722	TGTCCTCGGAGTGGACAAATAACATCAGACAGATCAACCA	Pub-3.seq
1081	TGTCCTCGGAGTGGACAAATAACATCAGACAGATCAACCA	ZGGBP1.seq
762	GGAGGCCACACCGGGCTTCCGCTCCGGCAGGGCACATC	Pub-3.seq
1121	GGAGGCCACACCGGGCTTCCGCTCCGGCAGGGCACATC	ZGGBP1.seq
802	AGCGAAAGACTTGGAGGCCGAGCCCCCTCGGAGGGGGATG	Pub-3.seq
1161	AGCGAAAGACTTGGAGGCCGAGCCCCCTCGGAGGGGGATG	ZGGBP1.seq
842	TCCCCCGAGGCCCTGGGAGACCATTCAAGGGAAAGTGAATAT	Pub-3.seq
1201	TCCCCCGAGGCCCTGGGAGACCATTCAAGGGAAAGTGAATAT	ZGGBP1.seq
882	CGCTGGAGAGACTCTCTCGGTCTGGCTCTGGCTGGGTTTGCCCACCCACCC	Pub-3.seq
1241	CGCTGGAGAGACTCTCTCGGTCTGGCTCTGGCTGGGTTTGCCCACCCACCC	ZGGBP1.seq
922	GTCTCCCCAGGATCTCGGACCAAGCTCTCAAGGAGCTGTCAG	Pub-3.seq
1281	GTCTCCCCAGGATCTCGGACCAAGCTCTCAAGGAGCTGTCAG	ZGGBP1.seq
962	AGGAACATAAGGAAAGGCTTCAGATCACTCCAGACTCCAA	Pub-3.seq
1321	AGGAACATAAGGAAAGGCTTCAGATCACTCCAGACTCCAA	ZGGBP1.seq
1002	TGGGGAAACAGTTCAGCTCTTGAATTCAAAGAGAACCCCTCC	Pub-3.seq
1361	TGGGGAAACAGTTCAGCTCTTGAATTCAAAGAGAACCCCTCC	ZGGBP1.seq
1042	TCAAGGGTGAAGGTCAATGCAGTGTCACTGGTCAACGGACGGCAGTTGCAG	Pub-3.seq
1401	TCAAGGGTGAAGGTCAATGCAGTGTCAACGGACGGCAGTTGCAG	ZGGBP1.seq
1082	AACAGGGCCATCTAACCGGCCATCAGTGGCCTATGTACAA	Pub-3.seq
1441	AACAGGGCCATCTAACCGGCCATCAGTGGCCTATGTACAA	ZGGBP1.seq

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FIGURE 5 continued

1122 T A C C A C G G C C G G T C T G C C T T C A G G C T G G G A A G A A A A Pub-3.seq  
 1481 T A C C A C G G C C G G T C T G C C T T C A G G C T G G G A A G A A A A ZGGBP1.seq

1162 G A T G C T A A G G G G G G C A C A T A C T A T G C A A T C A A T C A A T C Pub-3.seq  
 1521 G A T G C T A A G G G G G C A C A T A C T A T G C A A T C A A T C A A T C ZGGBP1.seq

1202 G A A C C A C A A C T T G G A C T C G A C C T A T G C A G C T T G C A G A Pub-3.seq  
 1561 G A A C C A C A A C T T G G A C T C G A C C T A T G C A G C T T G C A G A ZGGBP1.seq

1242 A G A T G G G T G C G G C C G G A T C A G C C A C A A C A G T A A C A A C C A T Pub-3.seq  
 1601 A G A T G G G T G C G G C C G G A T C A G C C A C A A C A G T A A C A A C C A T ZGGBP1.seq

1282 C T A A T C G A G G C C T C A G A T C C G G C C G G C C T C G T A G C C T C A G C T Pub-3.seq  
 1641 C T A A T C G A G G C C T C A G A T C C G G C C G G C C T C G T A G C C T C A G C T ZGGBP1.seq

1322 C G C C A A C A G G T A A C T T T A T C T G C C C C G C T G G A G G G T G C C C A A Pub-3.seq  
 1681 C G C C A A C A G G T A A C T T T A T C T G C C C C G C T G G A G G G T G C C C A A ZGGBP1.seq

1362 G G A C T C A C C C C G T A C G T C G G G C T G T G A A A G A C A C C C T T T C C Pub-3.seq  
 1721 G G A C T C A C C C C G T A C G T C G G G C T G T G A A A G A C A C C C T T T C C ZGGBP1.seq

1402 A A C C C A C A G T C C C C A C A G G C C A T C A C C T T A C A A C T C C C C C A Pub-3.seq  
 1761 A A C C C A C A G T C C C C A C A G G C C A T C A C C T T A C A A C T C C C C C A ZGGBP1.seq

1442 A A C C A C A C A A A G T C A C A C A G A G C T T C T T G C C A C C C C G G Pub-3.seq  
 1801 A A C C A C A C A C A A A G T C A C A C A G A G C T T C T T G C C A C C C C G G ZGGBP1.seq

1482 C T G G G A A A T G A G G A T A G G G C C A A C C G G C C T T C T T G C C C C T T C Pub-3.seq  
 1841 C T G G G A A A T G A G G A T A G G G C C A A C C G G C C T T C T T G C C C C T T C ZGGBP1.seq

1522 A T T G A T C A T A A C A C A A G A C A A C C T G G G A A G A T C C A C Pub-3.seq  
 1881 A T T G A T C A T A A C A C A A G A C T A C A A C C T G G G A A G A T C C A C ZGGBP1.seq

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FIGURE 5 continued

1562 G T T G A A A T T C C A G T A C A T A T G C G G T C A A A G A C A T C T T T Pub-3.seq  
1921 G T T G A A A T T C C A G T A C A T A T G C G G T C A A A G A C A T C T T ZGGBP1.seq

1602 A A A C C C C A A T G A C C T T G G C C C C T T C C T C C T G G C T G G G A A Pub-3.seq  
1961 A A A C C C C A A T G A C C T T G G C C C C T T C C T C C T G G C T G G G A A ZGGBP1.seq

1642 G A A G A A T T C A C T T G G A T G G C C G A A C G T T T A T A T T G A T C Pub-3.seq  
2001 G A A G A A T T C A C T T G G A T G G C C G A A C G T T T A T T G A T C ZGGBP1.seq

1682 A T A A T A G C A A A A T T A C T C A G T G G G A A G A C C C A A G A C T G C A Pub-3.seq  
2041 A T A A T A G C A A A A T T A C T C A G T G G G A A G A C C C A A G A C T G C A ZGGBP1.seq

1722 G A A C C C A G C T A T T A C T G G T C C G G C T G T C C C T T A C T C C A G A Pub-3.seq  
2081 G A A C C C A G C T A T T A C T G T C C G G C T G T C C C T T A C T C C A G A ZGGBP1.seq

1762 G A A T T A A G C A G A A A T A T G A C T A C T C A G G A A A T T A A Pub-3.seq  
2121 G A A T T A A G C A G A A A T A T G A C T A C T C A G G A A G A A T T A A ZGGBP1.seq

1802 A G A A A C C T G C T G A T A T C C C A A T A G G T T T G A A A T G A A A C T Pub-3.seq  
2161 A G A A A C C T G C T G A T A T C C C A A T A G G T T T G A A A T G A A A C T ZGGBP1.seq

1842 T C A C A G A A A C A T A T T T G A A G A G T C C T A T C G G A G A A T T Pub-3.seq  
2201 T C A C A G A A A C A T A T T T G A A G A G T C C T A T C G G A G A A T T ZGGBP1.seq

1882 A T G T C C C G T G A A A A G A C C A G A T G T C C T A A A A G C T A G A C T G T Pub-3.seq  
2241 A T G T C C C G T G A A A A G A C C A G A T G T C C T A A A A G C T A G A C T G T ZGGBP1.seq

1922 G G A T T G A G T T T G A A T C A G A G A A A G G G T C T T G A C T A T G G G G G Pub-3.seq  
2281 G G A T T G A G T T T G A A A T C A G A G A A A G G T C T T G A C T A T G G G G G ZGGBP1.seq

1962 T G T G G C C A G A G A A T G G T T C T T C C T T A C T G T C C C A A A G A G A T C Pub-3.seq  
2321 T G T G G C C A G A G A A A T G G T T C T T C C T T A C T G T C C C A A A G A G A T C ZGGBP1.seq

2002 T T C A A C C C C T A C T A C G G C C T C T C T C T C T G A G T A C T C T G G C C A C G G Pub-3.seq  
2361 T T C A A C C C C T A C T A C G G C C T C T C T G A G T A C T C T G G C C A C G G ZGGBP1.seq

2042 A C A A C T A C A C C C T T C A G A T C A A C C C T A A T T C A G G C C T C T G Pub-3.seq  
2401 A C A A C T A C A C C C T T C A G A T C A A C C C T A A T T C A G G C C T C T G ZGGBP1.seq

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FIGURE 5 continued

2082 T A A T G A G G G A T C A T T T G T C C T A C T T C A C T T T A T T T G G A A G A Pub-3.seq  
2441 T A A T G A G G G A T C A T T T G T C C T A C T T C A C T T T A T T T G G A A G A ZGGBP1.seq

2122 G T T G C T G G T C T G G C C G T A T T T C A T G G G A A G C T C T T A G A T G Pub-3.seq  
2481 G T T G C T G G T C T G G C C G T A T T T C A T G G G A A G C T C T T A G A T G ZGGBP1.seq

2162 G T T T C T T C A T T A G A C C A T T T C A A A G A T G A T G T G G G A A A Pub-3.seq  
2521 G T T T C T T C A T T A G A C C A T T T C A A A G A T G A T G T G G G A A A ZGGBP1.seq

2202 G C A G A T A A C C C T G G A A T G A C A T G G A A T C T G T G G A T A G T G A A Pub-3.seq  
2561 G C A G A T A A C C C T G G A A T G A C A T G G A A T C T G T G G A T A G T G A A ZGGBP1.seq

2242 T A T T A C A A C T C T T T G A A A T G G A T C C T G G A G A A T G A C C C T A Pub-3.seq  
2601 T A T T A C A A C T C T T T G A A A T G G A T C C T G G A G A A T G A C C C T A ZGGBP1.seq

2282 C T G A G C T G G A C C T C A T G T T C T G C A T A G A C G A A G A A A A C T T Pub-3.seq  
2641 C T G A G C T G G A C C T C A T G T T C T G C A T A G A C G A A G A A A A C T T ZGGBP1.seq

2322 T G G A C A G C A T A T C A A G T G G A T T G A A G C C C A A T G G G G T C A Pub-3.seq  
2681 T G G A C A G C A T A T C A A G T G G A T T G A A G C C C A A T G G G G T C A ZGGBP1.seq

2362 G A A A T A T G G G T C A C A A A T G A A A A A G G G A A T T A T A T C G Pub-3.seq  
2721 G A A A T A T G G G T C A C A A A T G A A A A A G G G A A T T A T A T C G ZGGBP1.seq

2402 A C T T A G T C A T C C A G T G G A G A G T T G T G A A C A G G G T C C A G A A Pub-3.seq  
2761 A C T T A G T C A T C C A G T G G A G A G T T G T G A A C A G G G T C C A G A A ZGGBP1.seq

2442 G C A G A T G A A C G G C T T C T T G G A G G G A T T C A C A G A A C T A C T T Pub-3.seq  
2801 G C A G A T G A A C G G C T T C T T G G A G G G A T T C A C A G A A C T A C T T ZGGBP1.seq

2482 C C T A T T G A T T T G A T T A A A T T T G A A A T G A G C T G G Pub-3.seq  
2841 C C T A T T G A T T T G A T T A A A T T T G A A A A T G A G C T G G ZGGBP1.seq

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FIGURE 5 continued

2522	A G T T G C T C A T G T C G C G C C T C G G T G A T G T G G A T G T G A A T T G A	Pub-3.seq
2881	A G T T G C T C A T G T G G G G C C T C G G G G C C T G G G G A T G T G A A T T G A	ZGGBP1.seq
2562	C T G G A G A C A G G C A T T C T C A T T A C A A G A A C C G G C T A C T G C C C A	Pub-3.seq
2921	C T G G A G A C A G G C A T T C T C A T T A C A A G A A C C G G C T A C T G C C C A	ZGGBP1.seq
2602	A A C C A C C C C G T C A T T C A G T G G T T C T G G A A G G C T G T G C T A C	Pub-3.seq
2961	A A C C A C C C C G T C A T T C A G T G G T T C T G G A A G G C T G T G C T A C	ZGGBP1.seq
2642	T C A T G G A C C G C C G A A A A G G C G T A T C C C G G T T A C T G C A G T T G T	Pub-3.seq
3001	T C A T G G A C C C G G A A A A G G C G T A T C C C G G T T A C T G C A G T T G T	ZGGBP1.seq
2682	C A C A G G G G A C A T C G C G A G T A C C T A T G A A T T G G A T T G C C G A A	Pub-3.seq
3041	C A C A G G G A C A T C G C G A G T A C C T A T G A A T T G G A T T G C C G A A	ZGGBP1.seq
2722	C T T T A T G G T T C C A A T G G G T C C T C A G G T G T T T A C A A A T A G A G C	Pub-3.seq
3081	C T T T A T G G T T C C A A T G G G T C C T C A G G T G T T T A C A A A T A G A G C	ZGGBP1.seq
2762	A A T G G G G C A G T C C G G A A C T C C C A G A G C T C A C A C A T T G	Pub-3.seq
3121	A A T G G G G C A G T C C G G A A C T G G G T C C C A G A G C T C A C A C A T T G	ZGGBP1.seq
2802	C T T T A A T C G G C C T T G A C T T A C C T A C C T C C A T A T G A A A C C T T T G A A	Pub-3.seq
3161	C T T T A A T C G G C C T T G A C T T A C C T A C C T C C A T A T G A A A C C T T T G A A	ZGGBP1.seq
2842	G A T T A C G A G A A C T T C A T G G C C G G T G G A A A T T G C T C	Pub-3.seq
3201	G A T T A C G A G A A A C T T C A T G G C C G G T G G A A A A A T T G C T C	ZGGBP1.seq
2882	A G G A T T T G A A G G G G T G G G A T T A A G C A A C C C T G T G C C T C G G G	Pub-3.seq
3241	A G G A T T T G A A G G G G T G G G A T T A A G C A A C C C T G T G C C T C G G G	ZGGBP1.seq
2922	G G T G G T T G T T C A A G C A A G T T C A G T T C T G C A C T T T T G C A	Pub-3.seq
3281	G G T G G T T G T T C A A G C A A G T T C T G C A C T T T T G C A	ZGGBP1.seq
2962	T T T G C C T A A C A G A C T T T T G C A G A G G G C A T G G C A G A G G C A	Pub-3.seq
3321	T T T G C C T A A C A G A C T T T T G C A G A G G G C A T G G C A G A G G C A	ZGGBP1.seq
3002	G C T G G C A G G C A T G G T C C C T G G A G C C T T C A C C A C G C A	Pub-3.seq
3361	G C T G G C A G G C A T G G T C C C T G G A G C C C T T C A C C A C G C A	ZGGBP1.seq

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FIGURE 5 continued

3208 - - - - -  
3840 AGACAAGTACCTTGAGAGAATTCCAAATAATTAATAGAC - - - - - Pub-3.seq  
3208 - - - - -  
3880 ATAATGATAATTTCATACTCAGAAATGAAAATGGAA - - - - - Pub-3.seq  
3214 - - - - -  
3920 TATTACGTTTGTGTTGGGTTTTGTACAAATTAG - - - - - Pub-3.seq  
3214 - - - - -  
3960 CTAATAGCTAACAGGCTGAGAGAATTGTAACATAAGCATGAC - - - - - Pub-3.seq  
3214 - - - - -  
4000 AATTTTGTGTTGACTTGAAAGGAATCACACCATTAATTCG - - - - - Pub-3.seq  
3214 - - - - -  
4040 TTAGAAGTAATTACATGGTCTAACACATTGAGACAGG - - - - - Pub-3.seq  
3214 - - - - -  
4080 GTTGGACTCCCCATTCTCATCTCGAGAAATTACTTAACCT - - - - - Pub-3.seq  
3214 - - - - -  
4120 TCCCTGGGGCGCTGTACAGTCATCTTCTTCTTCTCT - - - - - Pub-3.seq  
3214 - - - - -  
4160 TTGGCTGGTTGTAGAGACATTGGAAACTTGGCA - - - - - Pub-3.seq  
3214 - - - - -  
4200 CTGCTTGATTCAAACCTGGAAACCGAGATCTGTCTAGTC - - - - - Pub-3.seq  
3214 - - - - -  
4240 TCCCTGTTGTATGGCTAATGGTAGCTAAATTACCTTATG - - - - - Pub-3.seq  
3214 - - - - -  
4280 GTTTTGTAAATGCCAACATTCTGAAGGCACCTTATG - - - - - Pub-3.seq  
3214 - - - - -  
4320 TACTACATGGAGGTCAATATCTGGTTTGTATTATT - - - - - Pub-3.seq

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FIGURE 5 continued

3214 - - - - -  
4360 TATCATGAAACATTAAATGTTGATGATTTCTTCCCTTG - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
3214 - - - - -  
4400 CACACATCTTCCGGTGCAATATCTATCAAATTGTTGAATCT - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
4440 GGCTGCTGGTGTATAAAAACCTGGATGTAAAAGCTGAGCCT - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
4480 ACAGACCTGTCCTCACCAACCTGTTGATTCTACTCAG - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
4520 ACTACAAAGATTATTAAATGTTACTCTTAATCTAACTGAG - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
4560 TTTGTACCCAATGACCTGGATGTTGCTTACCTAACCGTGT - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
4600 ACTGCCCTGAGTTGTGCCCTCTGCTGCTAGATTAAAGTG - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
4640 AGACAGAGACTTGACTTGACTCCCTGAGCCTCAAGCTATT - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
4680 GAGCTGGTAGTGGCAGAGGACTGAGGGTACCCCTGCAAGTT - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
4720 TGATTCTTCTCCACGGTTGTAAGTCTCCATTGCAAGAATTG - - - - - Pub-3.seq  
ZGGBP1.seq  
3214 - - - - -  
4760 TCCGTGCGTTGAGAAAACACCTGAGGGCAAGTGTGGGAGTTG - - - - - Pub-3.seq  
ZGGBP1.seq

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FIGURE 5 continued

3214 - - - - -  
4800 A C G A C C C T G C T G C T T A C C C T G T G T C C T A G A C Pub-3.seq  
ZGGBP1.seq

3214 - - - - -  
4840 C T G T C G G G C A G T C A G G G A C A C T A G A G A T T G G A T C T C A T Pub-3.seq  
ZGGBP1.seq

3214 - - - - -  
4880 G C G A G T C A T C A A T A G G A C A A A A A G T T G G T T G G G A G Pub-3.seq  
ZGGBP1.seq

3220 - - - - -  
4920 G T C T G T T G T T A C A T A A A A G G A C C T T C G G T G T A A G A A Pub-3.seq  
ZGGBP1.seq

3220 - - - - -  
4960 T T G C C G T T T T A C C C T G G C C T G G C A T G T G A G A G C C Pub-3.seq  
ZGGBP1.seq

3220 - - - - -  
5000 A T G G A A G G T T G G T T G T A A A T G A G T T G T C T A A A G G G T G Pub-3.seq  
ZGGBP1.seq

3220 - - - - -  
5040 C A G A G G C C T G A G G T T C T A A A G A A A G G T A G A T T T C T A C A G Pub-3.seq  
ZGGBP1.seq

3226 - - - - -  
5080 A G C T G A G T G T G G T T C C T T C T A T T G G T T G A A A A T A ZGGBP1.seq

3226 - - - - -  
5120 C C T G G T A G T G A T C A G A A A A C T T A G A T G C T A T G T A A C T C Pub-3.seq  
ZGGBP1.seq

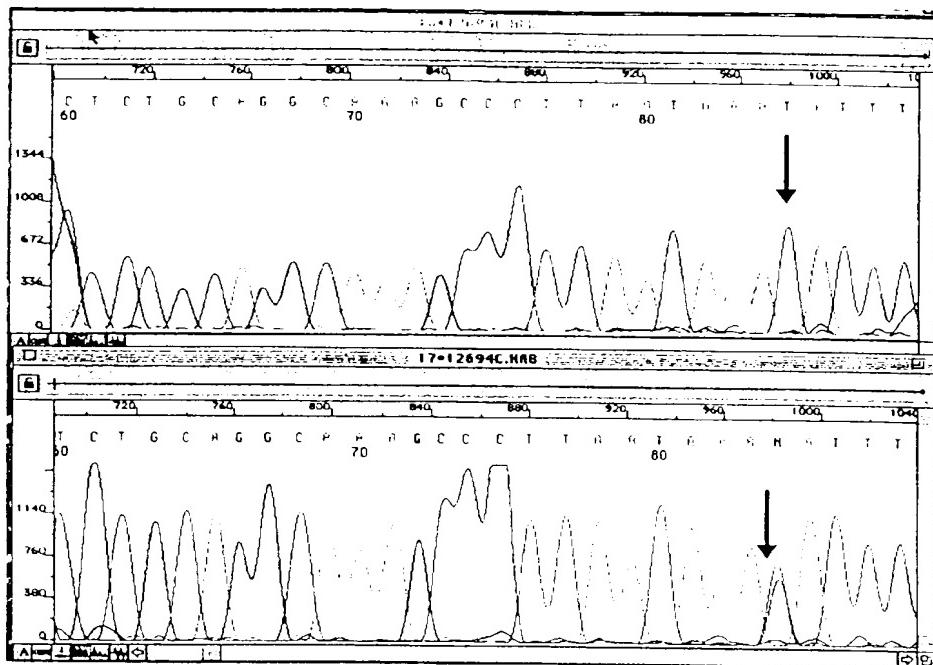
Decoration 'Decoration #1': Box residues that match the Consensus exactly.

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<b>Wild Type (human foetal brain)</b>	T/T
<b>Variant Type (human adult brain)</b>	T/C
<b>Polymorphism Position</b>	3554
<b>RFLP</b>	-

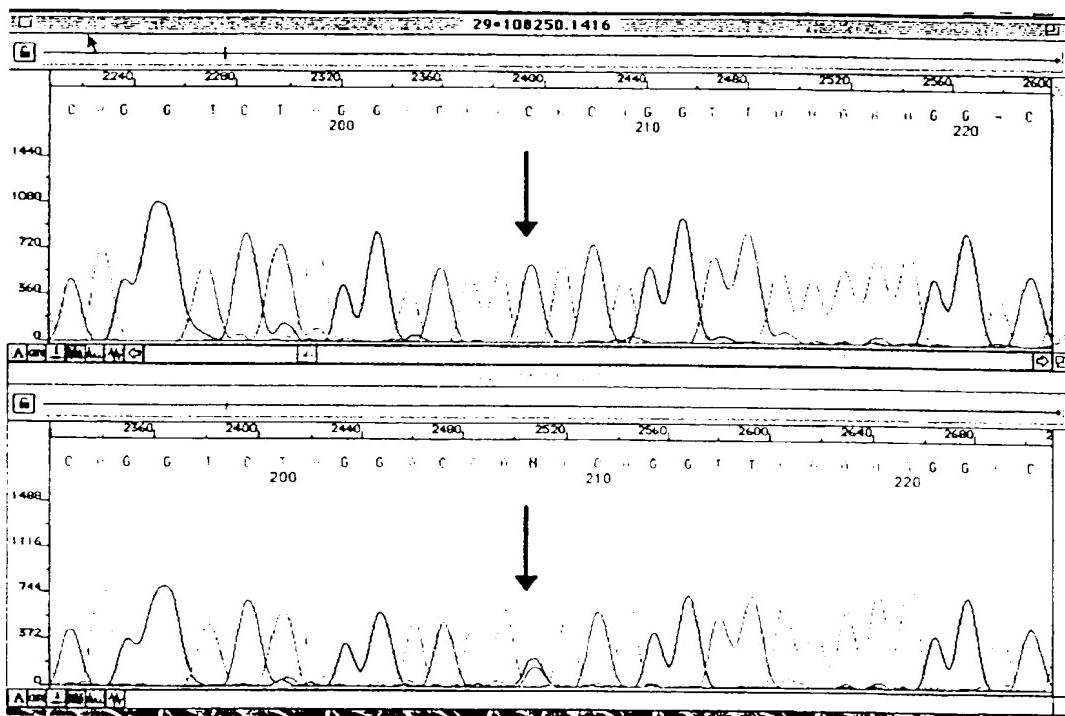
**FIGURE 6**

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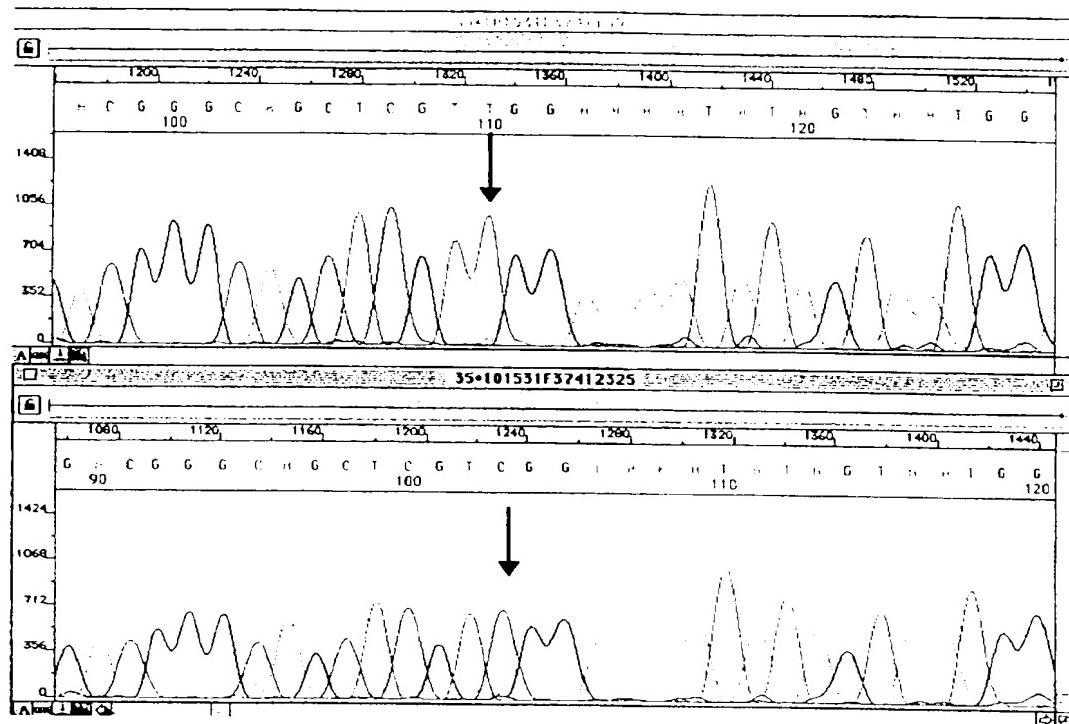
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Wild Type (GM1416)                    C/C  
Variant (7225)                        C/G  
Position                                4828

FIGURE 7

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Primer sequences derived from BAC and used on lymphoblastoid cell lines from BPAD Patients.

Homozygous wild type (KK169) - T/T

Homozygous variant (KK232) - C/C

FIGURE 8

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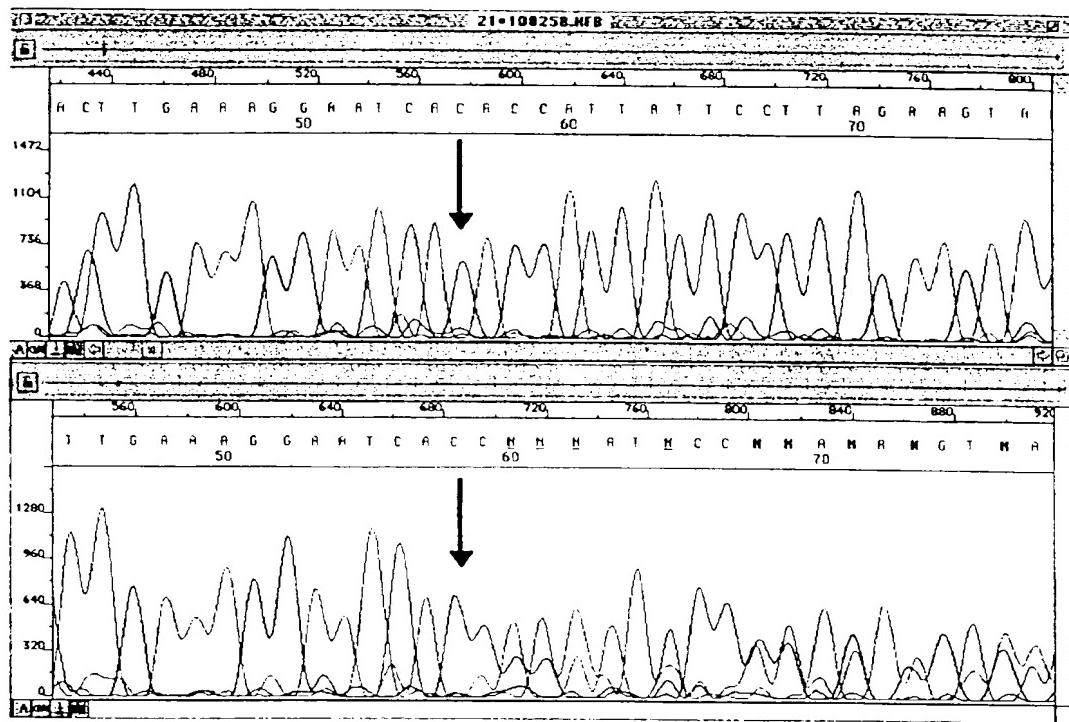
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Figure 9

TGCTGCAAGTGACAGGTTCCAAGAAGCCGAGGGCTCAGAGCTGAATGATGAAGCGC  
AGTCCCCAAAGTGCCTGCCACCCCTCCCTGGATCACTGCTGCTGGGCTTGA  
TTGATTGATTGATTGATTGATTGATTGATTGAGAGAGATTCTCACTGTCACCCAG  
GCTGGAGTACAGTGGTGCATCTGGCTCACTGCAGCCTCTGCCTCCGGGTTCAAG  
CAATTCTCCTGCCTCAGCCTCCAAAGTAGCTGGGACTACAGGCACGCCACCACAC  
CCAGCTAATTTGTATTTAGTAAAAGACGGGTTTCACCATGTTGGGCCAGGATG  
GTCTTGATCTCCTGACCTCATGATCCACCCGCCGGCTTCAAAGTGCTGGGATAC  
AGGCATGAACCCGACGCCAGCATGGACATTTTTAATCCCCTGCCCTTTC  
TTGNGGCATAATT CATTGCAGGTCTTTCTATACAGATCATGGAAAACACATTTCT  
TAACTGAGTTNTTATTATTTACCCAGNCACCTCATGACANNTTACCCGTAC  
NACAAAATGGCACCTGCCAAAANCAACTTNATATAAGGATGCTCCAGGCCT

Tetranucleotide repeat underlined

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Top electropherogram (human foetal brain) - wild type

Lower electropherogram (7225)

- heterozygous variant

Arrow indicates the position of the C+C insertion - position 4032

FIGURE 10